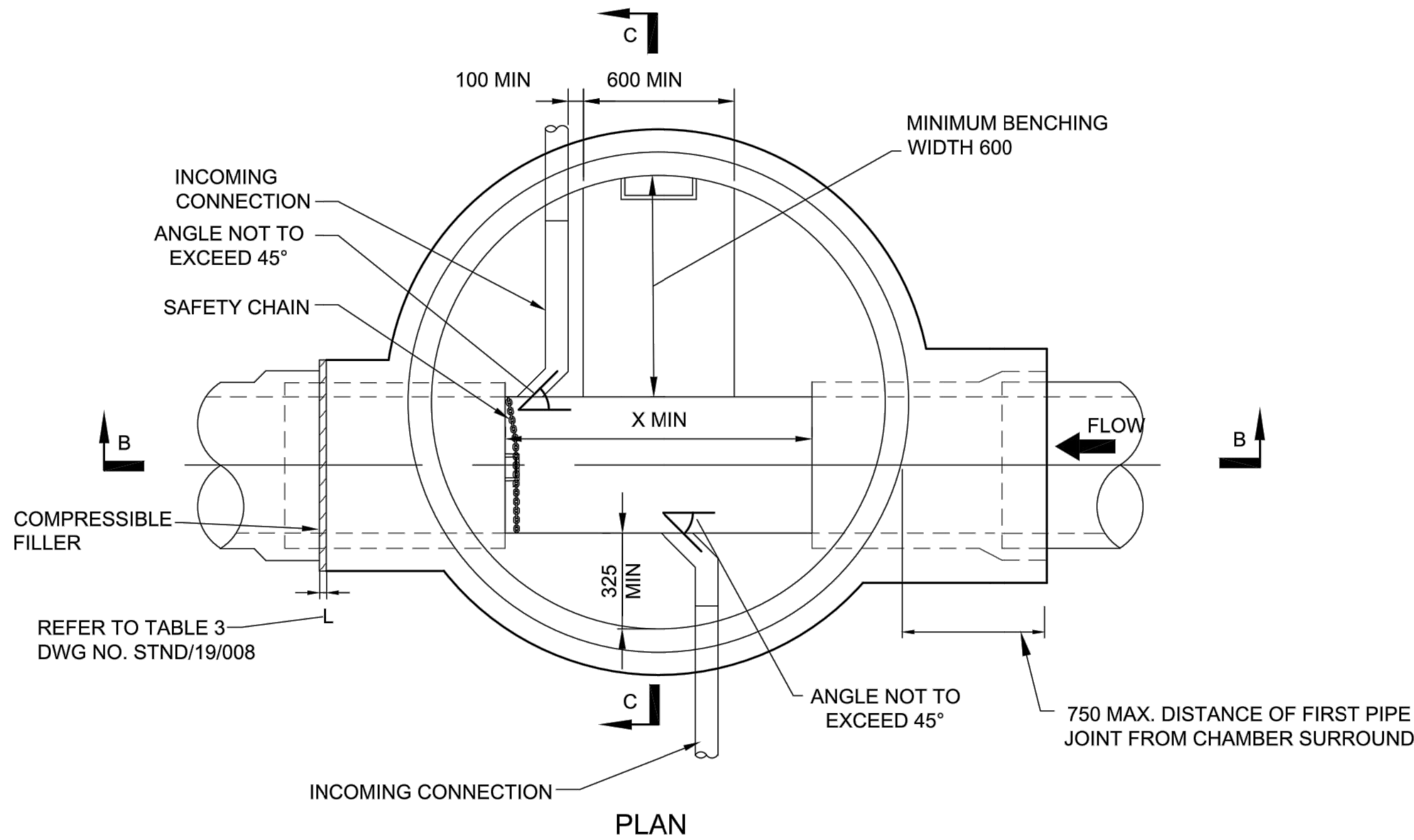
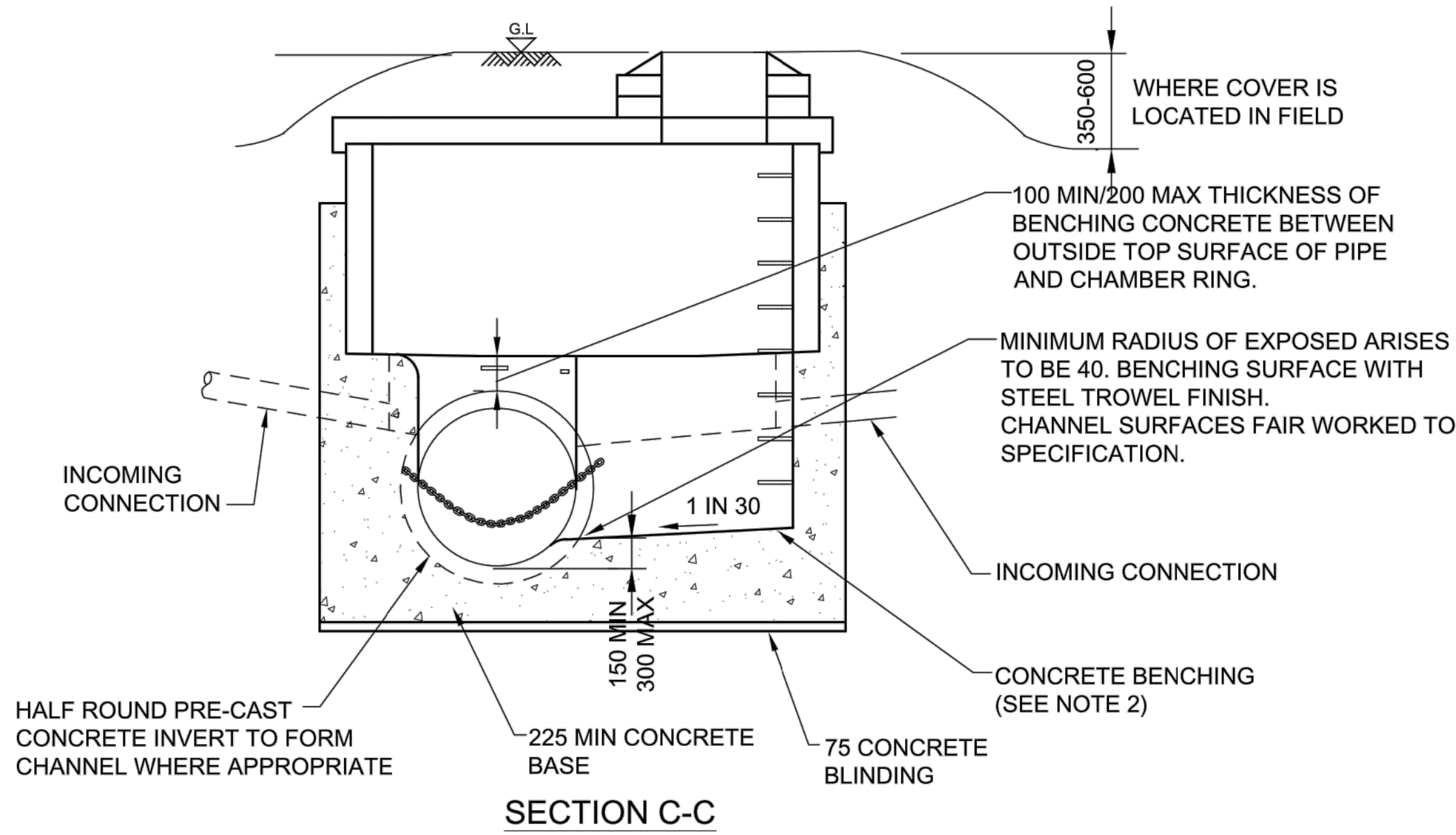
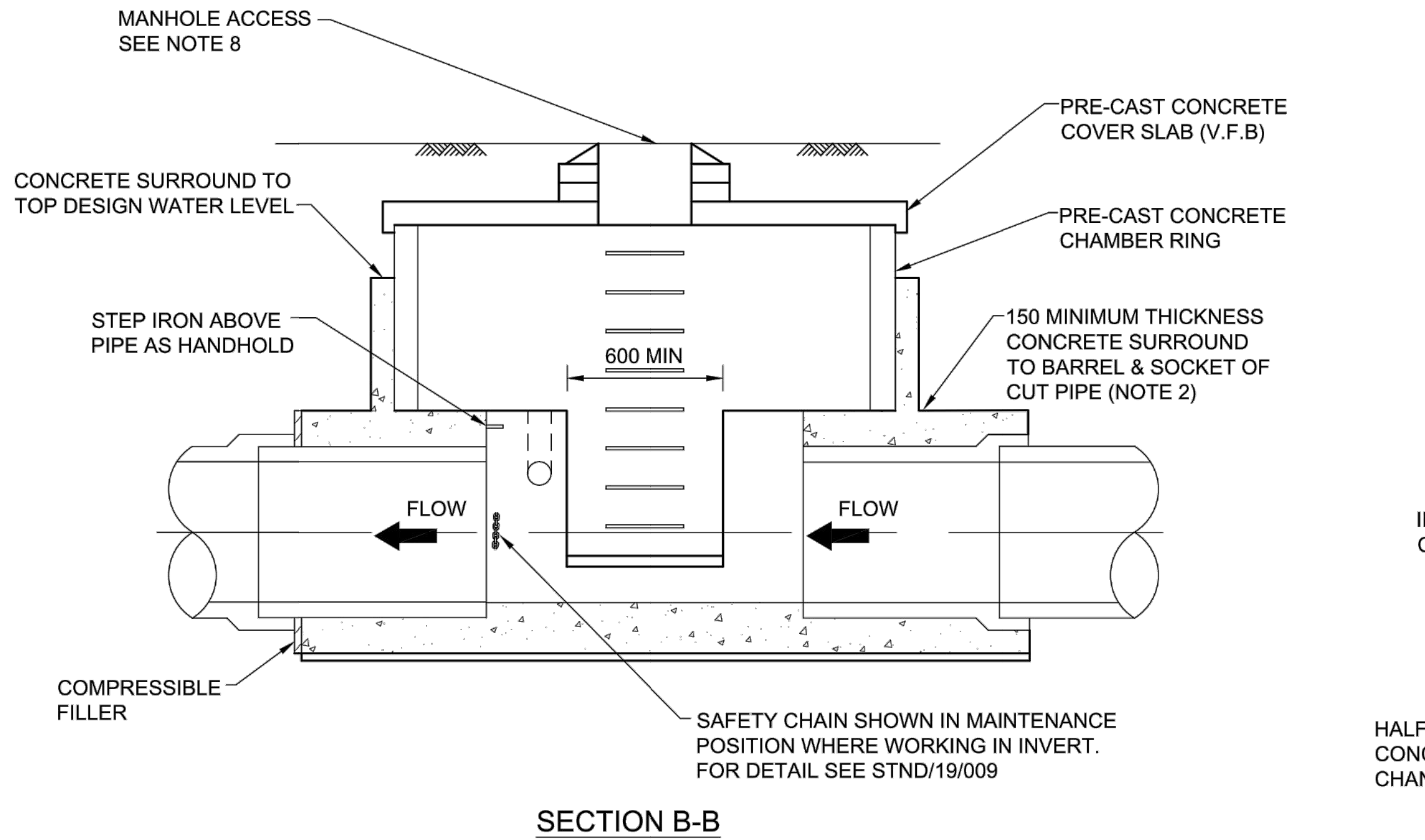




SHALLOW SURFACE WATER
MANHOLES ARE TO BE USED WHERE
THE MINIMUM 2.0m HEADROOM
CANNOT BE ACHIEVED BETWEEN TOP
OF BENCHING AND UNDERSIDE OF
COVER SLAB

NOTES

- ALL DIMENSIONS ARE IN MILLIMETRES
- CONCRETE BENCHING AND PIPE SURROUND
SHALL BE PLACED IN SINGLE CONTINUOUS OPERATION FROM TOP OF BASE SLAB TO TOP OF BENCHING AND PIPE SURROUND
- CONNECTION INTO MANHOLES
SHALL BE CONSTRUCTED WITH THE SOFFITS AT THE LEVEL UNLESS DETAILED DIFFERENTLY ON CONTRACT DRAWINGS
- METALWORK
LADDERS, HANDRAILING AND SAFETY CHAIN SHALL BE AS SHOWN ON DEVELOPER SERVICES DETAIL 9 (STND/19/009)
- CONCRETE SURROUND TO MANHOLES
A CONCRETE SURROUND IS NOT NORMALLY REQUIRED TO MANHOLES UNLESS INSTALLED IN AREAS OF UNSTABLE GROUND, UNDER CONDITIONS OF FLOTATION OR WHERE SUBJECTED TO EXCEPTIONAL OR ECCENTRIC LOADS. IN WHICH CASES A 150 SURROUND OF AT LEAST 20 N/mm CONCRETE SHALL BE PROVIDED. ANY JOINTS SHOULD BE STAGGERED WITH PRECAST CONCRETE JOINTS

6. MINIMUM LENGTH OF CHANNEL (X MIN)

CHAMBER DIA	"X" MIN
1050	800
1200	950
1350	1000
1500	1050
1800	1150
2100	1300
2400	1450
2700	1550
3000	1700

- CUT ENDS OF REINFORCED CONCRETE PIPES
SHALL BE TREATED WITH EPOXY RESIN PAINT/MORTAR
- MANHOLE ACCESSSES AND VARIABLE FEATURES (v.f.)
REFER TO DEVELOPER SERVICES DETAIL 10 (STND/19/010). DOUBLE STEPS SHALL BE PLASTIC ENCAPSULATED CARBON STEEL TO BS EN 1247-2
- COVER AND FRAME
150mm DEEP COVERS ARE TO BE USED IN CATEGORY 1, 2, 3 ROADS. 100mm DEEP COVERS ARE TO BE USED IN CATEGORY 4 ROADS. DOUBLE TRIANGULAR COVERS ARE TO BE USED IN CARRIAGEWAY. ROAD CATEGORY TO BE DESIGNATED BY THE HIGHWAY AUTHORITY. FRAME TO BE SET AS PER SPECIFICATION
- CONCRETE
ALL IN-SITU CONCRETE TO BE DC - 3 OR FND3

CIVIL / STRUCTURAL DESIGN RISK MANAGEMENT

Abnormal or unusual residual risks associated with the design outcomes shown on this drawing are:-

RSK LDE LTD has followed its Design Risk Management process for Hazard Elimination and Risk reduction in developing the designs shown on this drawing.
Abnormal or unusual residual risks may be shown above where it is considered that such risk may not normally be expected by competent persons engaged on work of this nature or type.

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Rev.	Date	Amendment	Drawn	Chkd.	Appd.

RSK

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Client
Kellen Homes

Project Title
**Don Street
Middleton**

Drawing Title
**Drainage Construction details
Sheet 4 of 10**

Drawn Date
JA JULY '21
Checked Date
MS JULY '21
Approved Date

Scale
NTS
Orig Size
A1
Dimensions

Project No.
882333
Drawing File

Drawing No.
40-15-04
Rev.
P1